## REMARKS

## DRAWINGS

Applicants' original drawings have been objected to by the Draftsperson. Applicants herewith submit formal drawings to overcome the objections of the Draftsperson.

## CLAIMS

Claims 11, 13, and 17 are currently amended. Claim 23 has been added. Claims 18, 19, 21, and 22 are cancelled.

### Rejection Under 35 USC 112, Second Paragraph

The Office Action rejects claims 13, and 18 - 22 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 18, 19, 21, and 22 have been cancelled. Claim 13 has been amended to correct the antecedent basis issue identified in the Office Action. Applicants' request that the rejection under 35 USC §112, second paragraph be withdrawn with respect to claim 13. None of the issues presented in this rejection are present in claim 20, neither does claim 20 depend from a rejected claim. Applicants respectfully request a clarification with respect to the rejection of claim 20 under 35 USC §112, second paragraph, or in the alternative request that the rejection of claim 20 under 35 USC §112, second paragraph be withdrawn.

### Rejection Under 35 USC 103(a)

Claims 1, 2, 4-7, 11-13, and 17- 21 have been rejected under 35 USC 103(a) as being unpatentable over the admitted prior art of Figures 12 and 13 in view of Platsch (US 5,502,788 hereinafter Platsch). Claims 3, 15, and 16 have been rejected under 35 USC §103(a) as being unpatentable over the admitted prior art of Figures 12 and 13 in view of Platsch, and further in view of Flynn et al. (US 4, 872,920 hereinafter Flynn et al.). Claims 8-10, 14, and 20 have been rejected under 35 USC §103(a) as being unpatentable over the admitted prior art of Figures 12 and 13 in view of Platsch, and further in view of Olbrant et al. (US 3,775,806 hereinafter Olbrant et al.). Claims 1 and 11 have been amended to include the limitation that a vacuum flow rate of between about 66 SCFM and about 168 SCFM is applied to the apparatus resulting in a local

velocity that is greater than substantially all the droplet conveying velocities. Applicants respectfully traverse these rejections in view of the claim amendments.

Applicants submit that Platsch is an improper reference. Platsch teaches the disposition of air nozzles for the purposes of cooling by convection, a locally disposed radiant heating element and the transference of heat entrained in the air to the objects being dried by the IR radiation emanating from the radiant heating element. Applicants teach the use of air jets for the purposes of disrupting the boundary layer of air on the surface, placing contaminants in suspension with the cleaning fluid, and drying the surface after the application of the cleaning fluid (p. 7, lines 6-11). The nozzle configuration of Platsch for the purpose of convective heat transfer cannot be construed to apply to the kinetic application of air in the present invention for the purpose of cleaning a surface.

Even assuming, for the sake of argument that Platsch is a proper reference, the cited combinations do not teach or suggest all of Applicants' claim limitations and therefore, do not establish a *prima facie* case of obviousness (see MPEP 2143.03). Specifically the combinations do not teach or suggest the amended claim limitation that the local velocity of the apparatus is greater than the conveying velocity of the cleaning droplets when the vacuum flow rate is between about 66 SCFM and about 168 SCFM. When the local velocity is greater than the conveying velocity of the cleaning fluid droplets, water does not drip from the apparatus onto the surface being cleaned. Applicants' Table 1, illustrates that the prior art apparatus of Figures 12 and 13 does not satisfy the claimed limitation.

The Office Action argues in *Response to Arguments,* that the selection of a desired velocity, droplet size, and flow rate would be obvious through routine experimentation in order to get the best possible cleaning efficiency on the surface to be cleaned. Applicants respectfully traverse this argument. Applicants' Table 1 does not provide data as to droplet size or local velocity. However, the table does provide data as to water dripping back onto the surface. Water drips onto the surface when the apparatus has failed to achieve a local velocity greater than the conveying velocity of the cleaning fluid droplets. The prior art examples, illustrated in Table 1, show that the prior art apparatus only achieves the claimed local velocity level at a vacuum flow rate outside the claimed range. The operation of the prior art in the claimed range of vacuum flow rate does not result in a local velocity greater than the conveying velocity since the prior art apparatus drips when operated in this range. Therefore, achievement of the claimed results is not a matter of determining optimal operating conditions through routine experimentation. Routine experimentation will not alter the basic performance capabilities of the apparatus illustrated by Table 1.

The addition of Platsch to the prior art apparatus does not cure the deficiency of the prior art with regard to the claimed limitation. Platsch does not teach that offsetting two banks of air jets provided for the purpose of convective heat transfer will increase the local velocity of air in a direction opposed to that of the jets. The addition of Flynn et al. to the combination of Figures 12 and 13 together with Platsch, also fails to add the teaching or suggestion that it is possible to achieve a local velocity greater than the conveying velocity of the cleaning fluid droplets in a vacuum flow rate range between about 66 SCFM and about 168 SCFM. Similarly, the addition of Olbrant et al. to the combination of Figures 12 and 13 together with Platsch, also fails to cure the deficiency as to the claimed limitation.

Nothing in the references teaches or suggests the attainment of a local velocity greater than the conveying velocity of cleaning fluid droplets such that the apparatus does not drip. Neither do the references, alone or in combination, provide any teaching or suggestion as to modifications to the prior art apparatus that may improve the claimed performance indicator.

The cited prior art does not teach or suggest all of the claim limitations of the invention. A *prima facie* case of obviousness under 35 USC § 103 has not been established. Applicants' respectfully request that the rejection be reconsidered and withdrawn.

Conclusion

In light of the above remarks, it is requested that the Examiner reconsider and withdraw the rejections under 35 USC §§ 112 and 103. Early and favorable action in the case is respectfully requested.

Respectfully submitted,

For: Donn Nathan Boatman et al.

By: _____

David K. Mattheis
Attorney for Applicant(s)
Registration No. 48,683
(513) 634-7419

January 28, 2004
Customer No. 27752